

Remarks

In the Office Action, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference number 65 mentioned in the description. The informal drawings as filed showed reference number 65 in Figure 1B. In response to a Notice to File Corrected Application papers, a corrected informal Figure 1B was submitted which inadvertently omitted reference number 65. A corrected informal drawing sheet for Figure 1B in compliance with 37 CFR 1.121(d) is submitted herewith. The corrected drawing conforms to Figure 1B as filed and includes reference number 65.

Claims 1-9 are pending in this application. Claims 7 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mattson, U.S. Patent No. 3,468,041. Claims 1-6 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mattson in view of Miller, U.S. Patent No. 5,438,770. In view of the amendments to the claims and the following Remarks, applicants respectfully traverse the rejections of the claims and request reconsideration.

Claims 7-9 have been amended to clarify that the present invention is used on self-propelled snow blowers with an engine over two drive wheels. Support for this amendment may be found in the specification at, for example, page 6, line 17 through page 9, line 5. No new matter is added.

As set forth in the specification, the present invention is directed to glide wheels to support the auger housing of a self-propelled or power driven snow blower and to provide for clearance between the scraper blade and the surface to be cleared of snow. As discussed in the specification, prior art self-propelled snow blowers used skid shoes on the bottom of the auger housing. Skid shoes experience wear in use and must be

replaced when the skid surface is worn away. In addition, irregularities in the surface being cleared can cause movement of the snow blower to be abruptly halted.

The glide wheels of the present invention overcome these and other deficiencies of skid shoes used on the auger of self propelled snow blowers. Glide wheels have reduced friction with the ground, improving movement of the snow blower. Glide wheels require less frequent replacement than skid shoes. In addition, the height difference between the scraper blade and the bottom of the wheel remains constant, preventing the scraper blade from digging into the surface to be cleaned. Glide wheels have the further advantage that they roll over obstacles that skid shoes would collide with or dig into.

As recited in the claims as amended, the self-propelled snow blower of the present invention includes an engine located above two drive wheels. A front-mounted auger has a first sidewall, a second sidewall and a scraper blade. As recited in claims 1 and 2, first and second glide wheels are affixed to the first and second sidewalls of the auger housing to support the auger housing. As recited in claims 3 through 6, glide wheel assemblies may be affixed to the first and second sidewalls to provide support to the auger housing. Claims 7 through 9 are recite in means plus function format means for translating the mechanical support from the glide wheel to the auger housing of a self-propelled snow blower, and means for fixedly adjusting the position of the axle axis relative to the auger housing.

35 U.S.C. §102(b)

Claims 7 and 8 stand rejected under 35 U.S.C. §102(b) based upon Mattson. Mattson describes a snow blower in which the impeller is driven by an electric motor in a sealed housing which is attached to the side of the auger housing. Mattson is directed to

the problem of cooling the electric motor on the snow blower. Col. 1, line 64 to Col. 2, line 8. Mattson describes a snow blower in which the electric motor is cooled utilizing the snow picked up by the impeller, and the electric motor is completely sealed. Col. 2, lines 1-29. The electric motor in the snow blower described in Mattson is connected directly to the impeller through the side of the auger housing to which the motor is attached. The electric motor is not used to drive wheels or propel the snow blower. Rather, the snow blower described in Mattson is propelled by being physically pushed by the user. Wheels are provided on the impeller housing to allow the user to physically push the snow blower of Mattson. The snow blower of Mattson is a relatively light weight machine that does not have, or require, drive wheels.

In addition, the wheels on the auger of the snow blower described in Mattson do not set the clearance between the surface to be cleaned and of snow and the scraper blade. As described in Mattson at Col. 6, lines 45-58, the height of the scraper blade is determined by the rearwardly extending skid 32a on the handle 32 together with the wheel, as the handle is used to pivot the auger about the axis of the wheels, and thereby adjust the height.

To anticipate a claim under 35 U.S.C. § 102(b), a single prior art reference must disclose every limitation recited in the claims. MPEP § 2131. Claims 7-9 have been amended to recite that the glide wheels are attached to the auger housing of a self-propelled snow blower with an engine over drive wheels. Mattson does not describe a self-propelled snow blower having an engine and drive wheels as recited in claims 7 and 8 as amended. Accordingly, claims 7 and 8 as amended overcome the rejection under 35 U.S.C. § 102(b) based on Mattson.

35 U.S.C. §103(a)

Claims 1-6 and 9 stand rejected under 35 U.S.C. §103(a) based on Mattson in view of Miller. As described above, Mattson is directed to a snow thrower having an electric motor to drive the impeller. The light weight snow blower of Mattson is moved by pushing by the user. The problem addressed by the invention described in Mattson is the cooling of the electric motor. Mattson is directed to improvements in cooling the electric motor by using the snow entering the snow thrower.

Miller describes a self-propelled snow blower having an engine on a frame above a drive track or drive wheels, with an auger housing attached to the front of the snow blower. The auger housing has skid shoes on the side wall, which is typical in self-propelled snow blowers of the type described in Miller and the prior art. As noted in Miller, a self-propelled snow blower “can weigh as much as several hundred pounds”. Col. 1, lines 49-51. The problem addressed by Miller is the difficulty in steering the self-propelled snow blower due to the weight. To address this problem, Miller describes a pivot wheel located near the drive track or drive wheel which can be lowered by the operator to improve the ability of the snow blower to turn.

In the Office Action on page 4, the Examiner states that it would be obvious to one of ordinary skill in the art to modify the snow blower in Mattson to include drive wheels on the snow blower, as described by Miller, to arrive at a snow blower of the type recited in the claims. For the reasons set forth below, Applicant respectfully traverses this grounds for rejection.

The combination suggested by the Examiner is not obvious because it would change the principle of operation of the primary reference. Mattson describes a light weight snow blower using an electric motor mounted on the auger housing to drive the

impeller within the housing. The Examiner states that it would be obvious to add drive wheels to the snow blower of Mattson, but the Examiner has not set forth how the drive wheels could be added to the device. Moreover, the electric motor on the device in Mattson would not be able to drive wheels to push the snow blower and drive the impeller. The snow blower of Mattson would have to be entirely redesigned, with a larger engine rather than an electric motor, to meet the limitations of the invention claimed in the present application. An obviousness rejection is improper if a suggested combination of reference would require substantial reconstruction and redesign of the elements shown in the primary reference as well as a change in the principle under which the primary reference construction was designed to operate. MPEP §2143.01.

In addition, one skilled in the art would not be motivated to combine Mattson and Miller in the manner suggested by the Examiner. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention obvious in light of the teachings of the references." Ex parte Clapp, 227 U.S.P.Q. 972, 973 (Bd. of Pat. App. & Inter. 1985). There is no teaching or suggestion in either Mattson or Miller to combine the references to arrive at the combination recited in the claims. Accordingly, it is the duty of the Examiner to explain why the combination of the teachings is proper. MPEP §2142. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

The Examiner suggests that one skilled in the art would be motivated to modify the electric motor driven snow blower of Mattson by adding drive wheels to reduce user

fatigue and improve safety. This is not supported by any evidence, and is contrary to the teachings of the references cited. Miller states that a disadvantage of the self propelled snow blower is that it is very heavy and difficult to steer. One skilled in the art would not be motivated to try to reduce fatigue of users by modifying the light weight pushable snow blower of Mattson by combining it in any manner with the heavy snow blower of Miller to reduce fatigue as suggested by the Examiner. Accordingly, the Examiner has not identified any teaching, suggestion or motivation to combine the references in the manner suggested, either in the references themselves or based on the knowledge of those skilled in the art. Thus, the Examiner's rejection does not meet the basic requirements of a prime facie case of obviousness as set forth in MPEP §2143.

In this instance, it is only the applicant's application which suggests the desirability of attaching glide wheels to the housing of a self-propelled snow blower. It appears that the Examiner has engaged in impermissible hindsight, using the applicant's disclosure as a road map to select features from references to arrive at the claimed invention. For at least the foregoing reasons, the Examiner's rejection is improper, and applicant respectfully requests that the rejections of claims 1-6 and 9 under 35 U.S.C. §103(a) be withdrawn.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes after considering these remarks, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

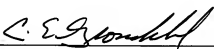
Because the reasons above are sufficient to traverse the rejection, Applicants have not explored, nor do they now present, other possible reasons for traversing such

rejections. Nonetheless, Applicants expressly reserve the right to do so, if appropriate, in response to any future Office Action.

No fee is believed to be required. However, if a fee is required or otherwise necessary to cover any deficiency in fees previously paid, authorization is hereby given to charge our Deposit Account No. 50-1402.

Respectfully submitted,

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